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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,491	03/26/2004	Yoshikazu Okada	20154/0201085-USO	8127
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DARBY & DARBY P.C. P.O. BOX 770 Church Street Station New York, NY 10008-0770			EXAMINER KASTLER, SCOTT R	
			ART UNIT	PAPER NUMBER
			1793	
			MAIL DATE	DELIVERY MODE
			12/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/810,491

Applicant(s)

OKADA ET AL.

Examiner

Scott Kastler

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18-68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 60 is/are allowed.
- 6) ☒ Claim(s) 18-59 is/are rejected.
- 7) ☒ Claim(s) 61-68 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 9/19/2006 has been entered.

***Claim Objections***

Claims 61-67 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The above claims are not properly further limiting upon independent apparatus claim 60 because these claims recite limitations dealing only with the manner or method of use of the claimed apparatus (the manner in which material to be treated by the apparatus, green compacts, are to be arranged within the claimed apparatus). It has been well settled that the manner or method of use of an apparatus cannot be relied upon to fairly further limit claims to the apparatus itself. See MPEP 2114 and 2115.

***Double Patenting***

Applicant is advised that should claims 18-37 be found allowable, claims 38-41, 43-51 and 53-59 respectively, will be objected to under 37 CFR 1.75 as being a substantial duplicate

thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokuhura et al. Tokuhura et al teaches a method of forming a sintered compact of at least M-grade accuracy including filling a die with a powder (col. 6 lines 26-64), compacting the powder with a lower punch to form green compacts (col. 7 lines 7-30) conveying the green compacts to a sintering plate which would inherently have a center, since all surfaces have a center, (col. 7 lines 31-49) and arranging the compacts in an array on the sintering plate, then placing the sintering plate in a furnace to sinter the green compacts and form a sintered compact, thereby showing all aspects of the above claims except the specifically recited arrangement of the green compacts on the sintering plate, since the array formation recited by Tokuhura et al would inherently result in directional gradients in the green compacts due to the differential heating rates of the green compacts across the green compact. Applicant has not yet presented any showing that the recited arrangements of the green compacts recited in the instant claims impart any demonstrated new or

unexpected result compared to the arrangement taught by Tokuhara et al (figure 2 for example), further, Tokuhara et al allows for any desired arrangement of the green compacts. The subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because it has been well settled that modification of the arrangement or configuration of a component shown by the applied prior art to any other, equally useful arrangement or configuration would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. See MPEP 2144.04 IV. In the instant case, motivation to arrange the green compacts of Tokuhara et al in any desired equally useful arrangements all of which fall within what is broadly allowed by Tokuhara et al, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

***Allowable Subject Matter***

Claim 60 is allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Instant claim 60 is allowable over the cited and applied prior art at least because none of the cited or applied prior art shows or fairly suggests employing a rotation mechanism with the sintering plate to enable the sintering plate to rotate about a vertical axis.

***Response to Arguments***

Applicant's arguments with respect to claims 18-68 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Okumura et al is also cited as a further example of prior art sintering equipment and methods.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/810,491  
Art Unit: 1793

Page 6

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Scott Kastler  
Primary Examiner  
Art Unit 1793

sk